

# HP-5101ES

## User Manual

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The product you have purchased and the setup screen may appear slightly different from those shown in this QIG. For more information about this product, please refer to the user manual on the CD-ROM. The software and specifications are subject to change without notice. Please visit our website [www.edimax.com](http://www.edimax.com) for updates. All brand and product names mentioned in this manual are trademarks and/or registered trademarks of their respective holders.

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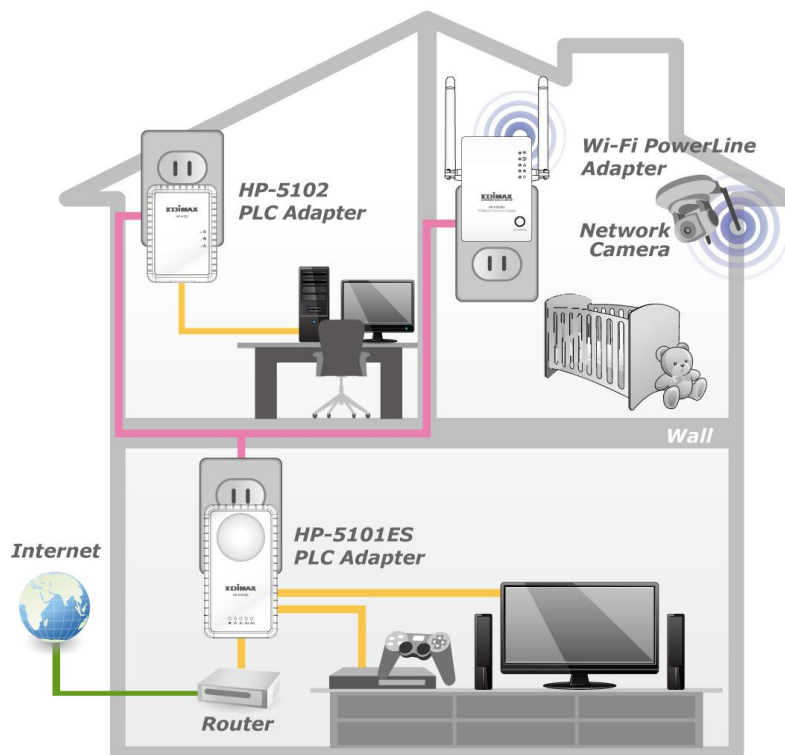
# Chapter 1: Introduction

## 1.1 Product Features

- Easy plug-n-play setup and 128-bit AES security
- Max. powerline speed up to 500Mbps
- Backward compatible with 200Mbps powerline adapters
- Features energy saving mode to reduce power consumption
- Utilizes existing electrical wires to transmit network data
- Powerline transmission range up to 300 meters

## 1.2 Application

- High-definition (HD) and standard-definition (SD) video distribution
- Broadband Internet sharing
- Internet Protocol Television (IPTV) and Voice over Internet Protocol (VoIP) applications



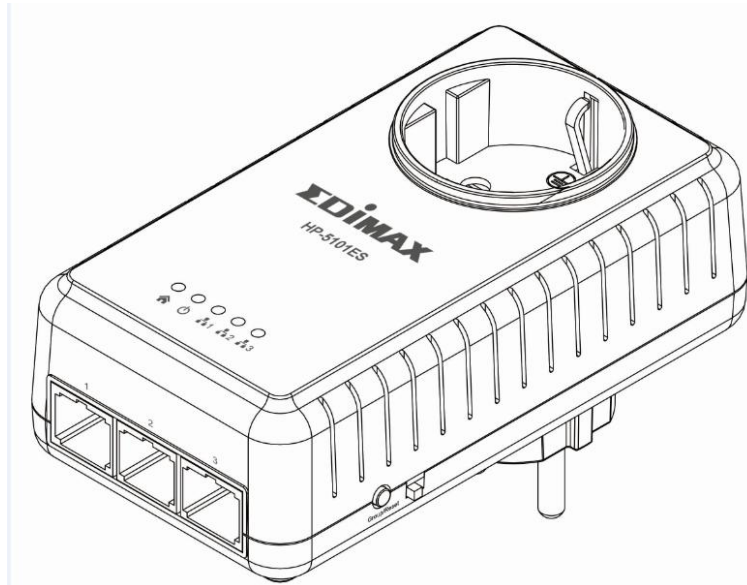
## 1.3 Compatibility

500Mbps powerline devices (HomePlug AV standard) are incompatible and cannot be used with 14Mbps and 85Mbps powerline devices (HomePlug 1.0 and 1.1 standards).




## 1.4 System Requirements

Operating System	Utility supports Windows XP/Vista/7/8
CPU	Intel Pentium III 1.0GHz (or above)
RAM	256MB (or above)
Free Disk Space	100MB (or above)
Network Interface	Ethernet port (100Mbps or above) and an Ethernet cable

## Chapter 2: Interfaces



### 2.1 LEDs

LED	Status	Description
 LAN1-3	Green	LAN port connected
	Blinking	LAN activity (transferring data)
	Off	LAN port not connected
 PLC	Green/Red	The green indicator turns on and the red indicator turns on slowly when the device is detecting a powerline link. The green indicator turns on and the red indicator turns on quickly to indicate data is being transferred over the powerline link.
	Off	No other PLC device detected
 PWR	Green	Powered on
	Off	Powered off

### 2.2 Button

Interface	Description
Ethernet Port	This is a Fast Ethernet port for connecting to a computer or other devices with a network port.
Group/Reset	Creates an encrypted powerline network group automatically (press the button for less than 3 seconds).

	Leaves an encrypted powerline network group (press the button for 5~8 seconds).
	Restores the powerline adapter to factory defaults (press the button for 10~15 seconds).
Power On/Off	Switches the powerline on or off.

## 2.3 Fast Ethernet Port

You can connect the powerline adapter to a router, a computer, or any network device via this Fast Ethernet port.

## Chapter 3: Utility Software Installation

### 3.1 Win 8

- Step 1** Before installing the utility software, make sure that no other powerline utility is installed on your computer. If any other utility software is installed, uninstall it and reboot the computer.
- Step 2** Insert the CD into your CD-ROM drive. When the following EZmax Wizard appears, select your model.

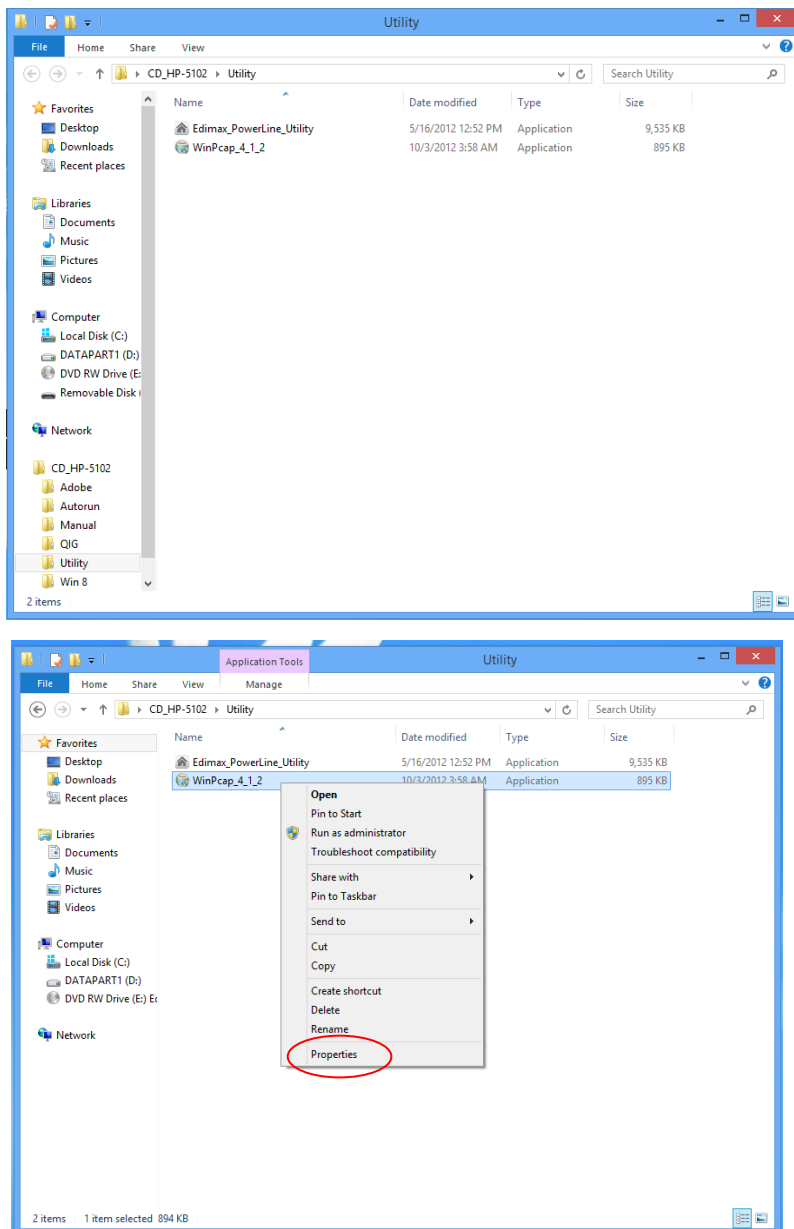


- Step 3** Then click "Setup Utility".

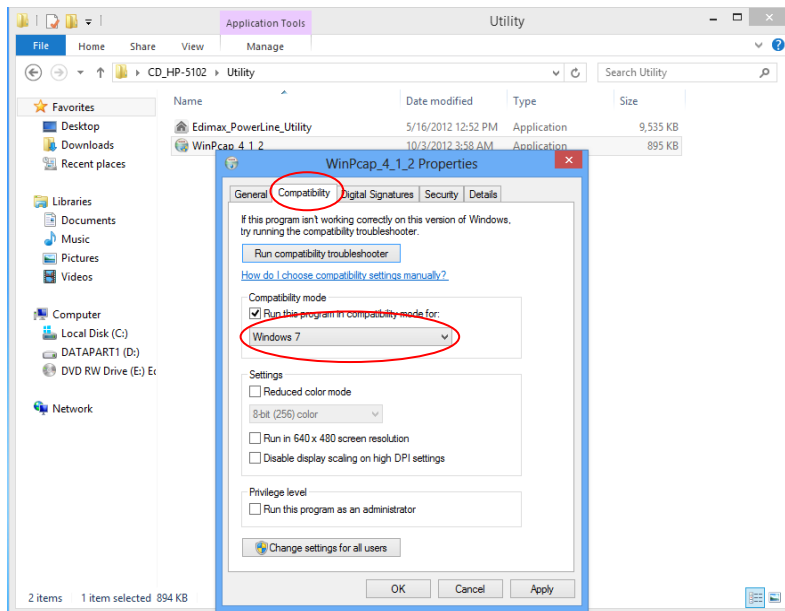




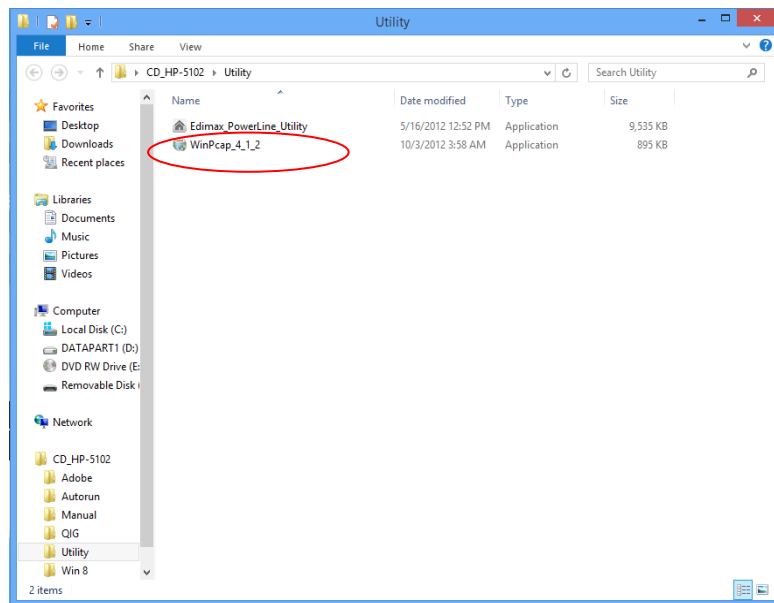
**Step 4** Click right button on WinPcap4.1.2 then click “Properties”.



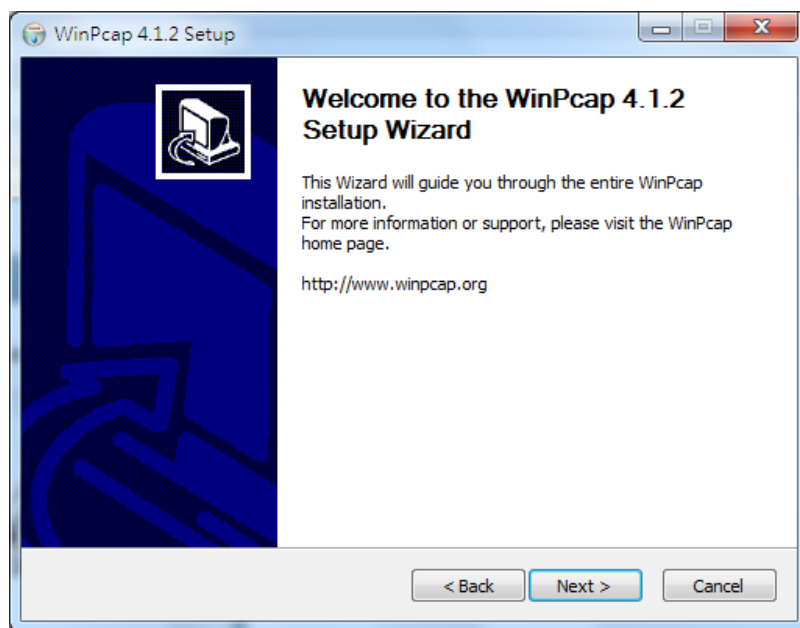
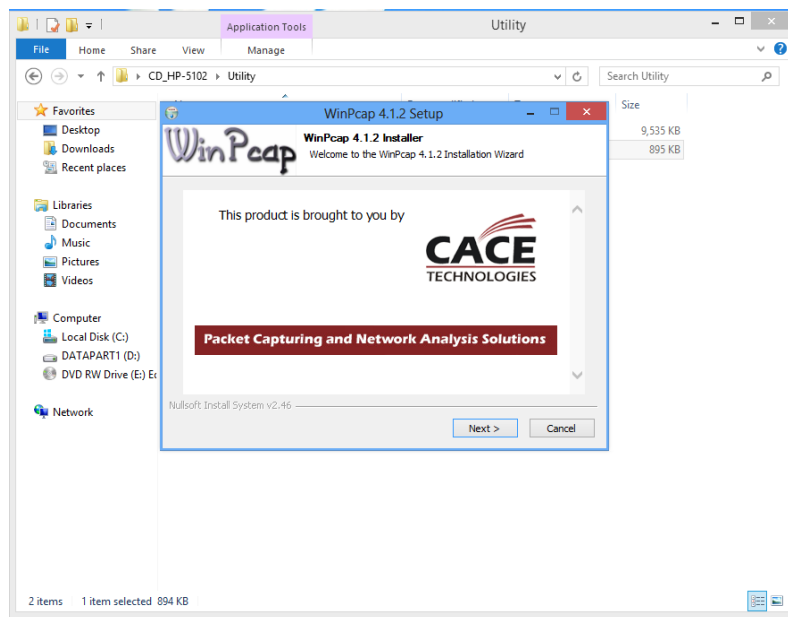
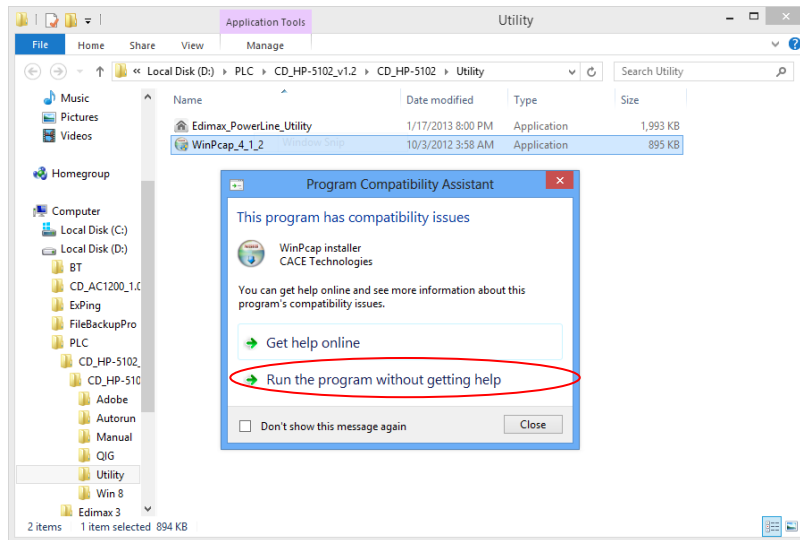
**Step 5** Click Compatibility tab and check “Run this program in compatibility mode for:”, then select Windows 7, then click “Apply”.

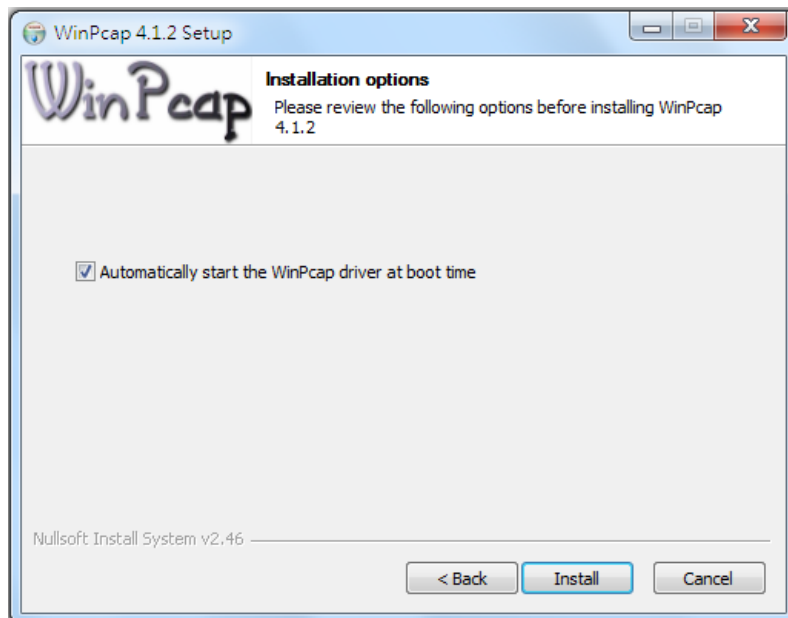
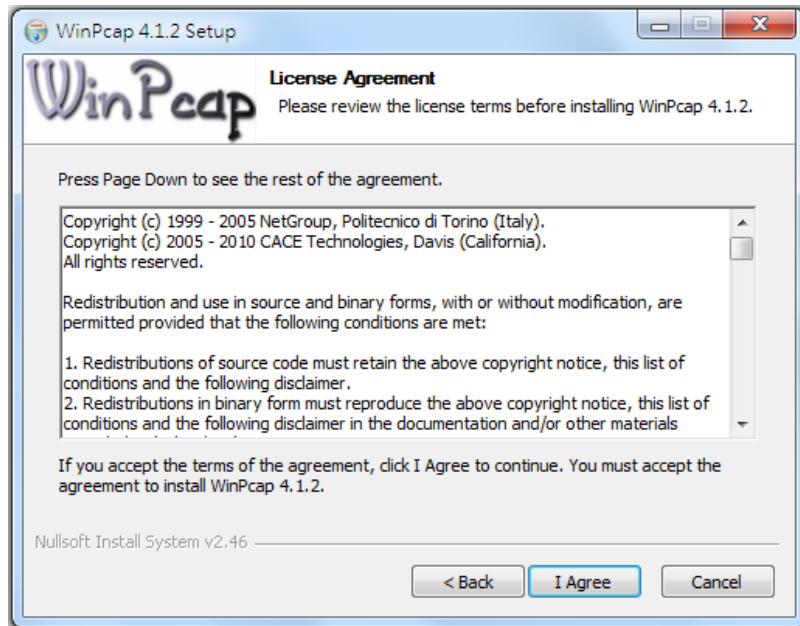


**Step 6** Then click “WinPcap\_4\_1\_2”. The wizard will guide you through the setup process.

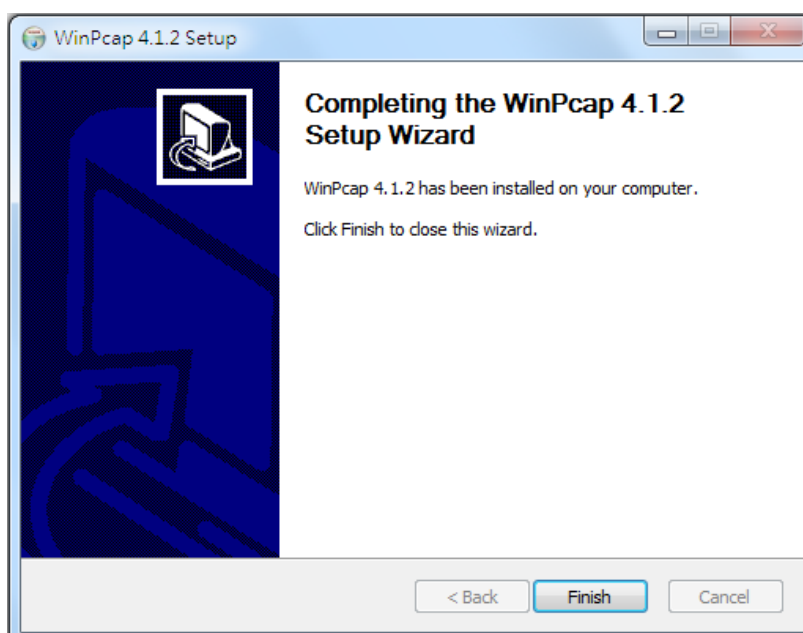


**Step 7** When the following WinPcap Compatibility Assistant appears, select Run the program without getting help.

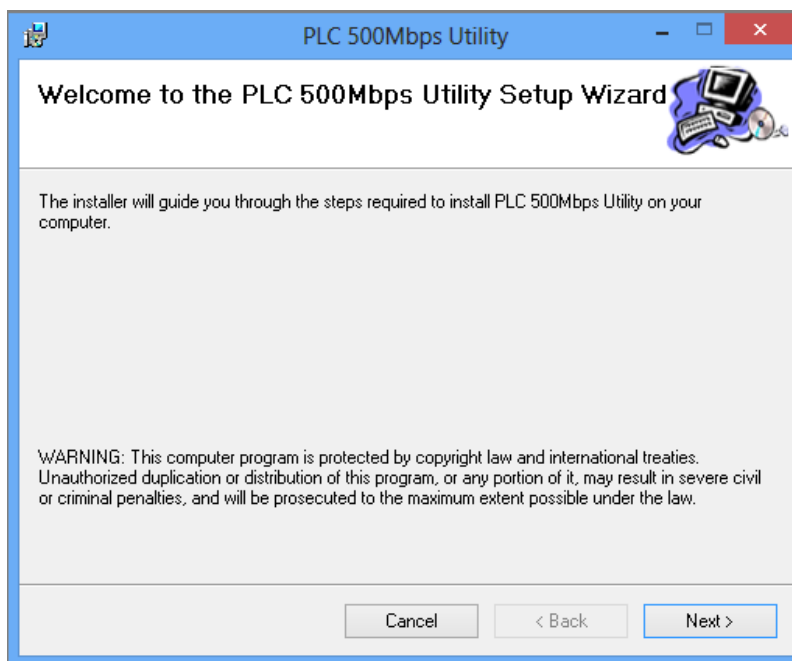
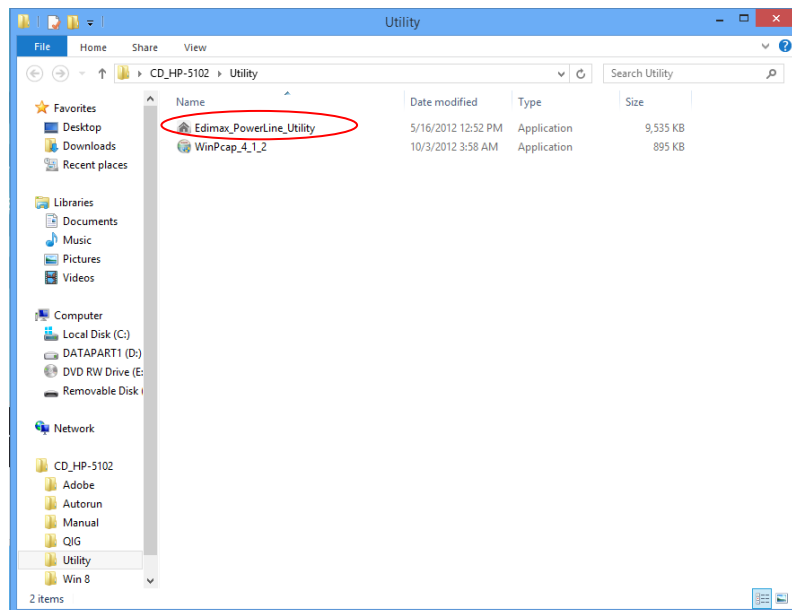




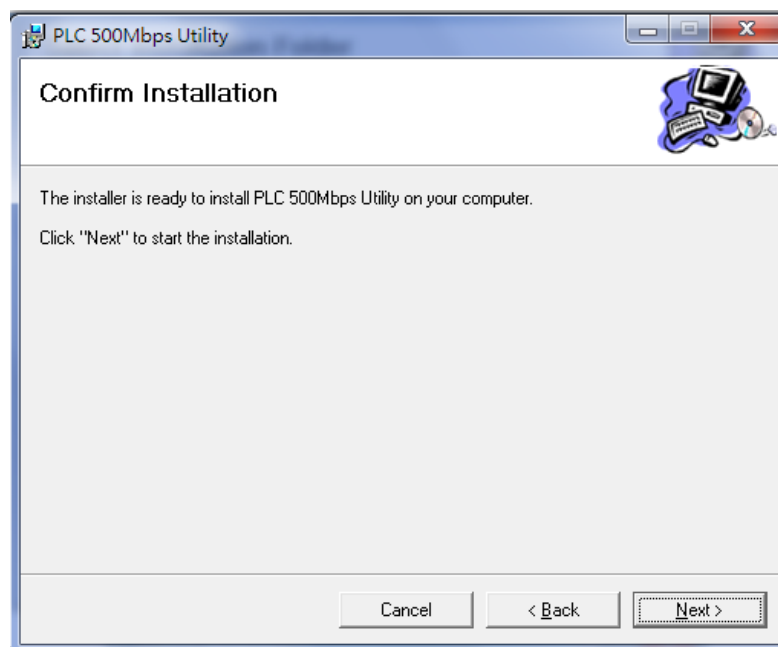
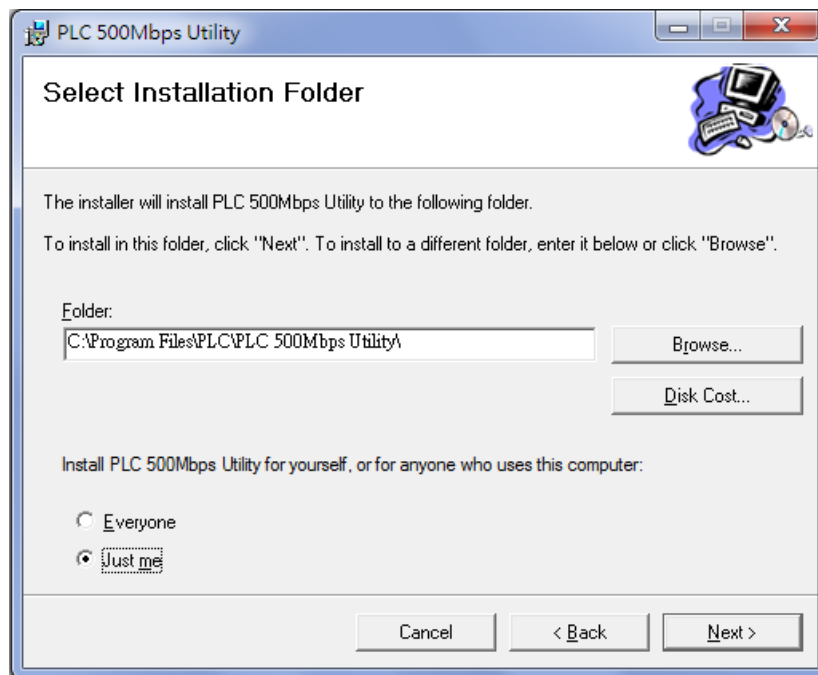
**Step 8** After the installation is complete, click “Finish”.



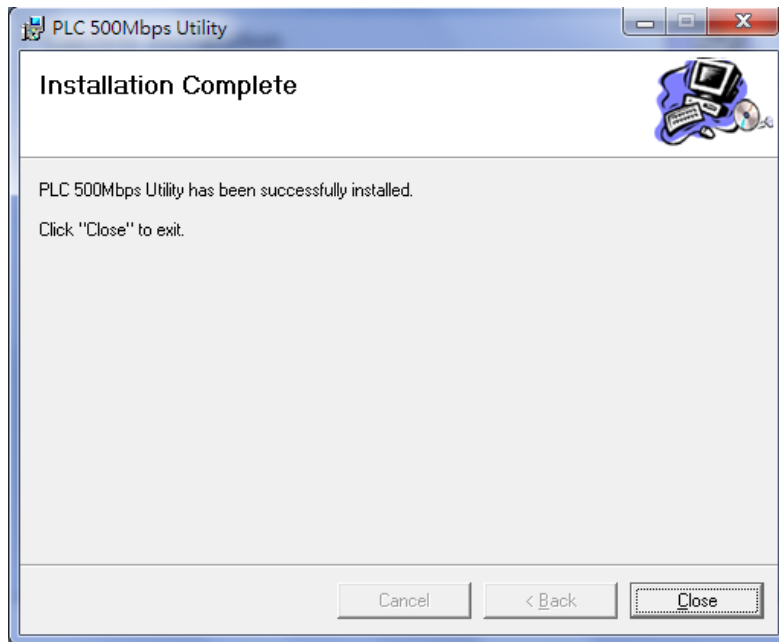
**Step 9** Click the “Edimax PowerLine Utility”, the “PLC 500Mbps Utility” appears, click “Next” to continue.



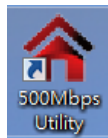
**Step 10** Select where you want to install the utility software, and then click “Next”.



**Step 11** After the installation is complete, click "Close".



**Step 12** An icon will appear on your desktop. Click the icon to open the utility software.



**Note:** You can manage all the connected powerline adapters with the utility software. However, installing the utility software is optional.

### 3.2 Win XP/Vista / 7

- Step 1** Before installing the utility software, make sure that no other powerline utility is installed on your computer. If any other utility software is installed, uninstall it and reboot the computer.
- Step 2** Insert the CD into your CD-ROM drive. When the following EZmax Wizard appears, select your model.

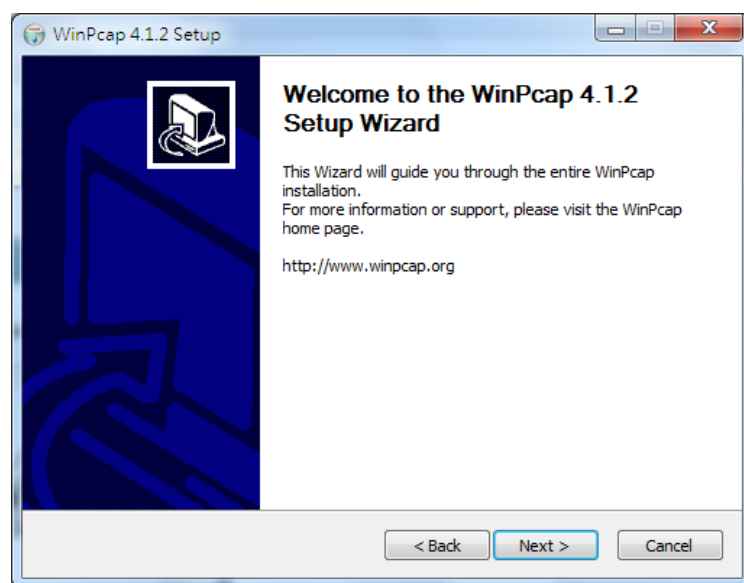
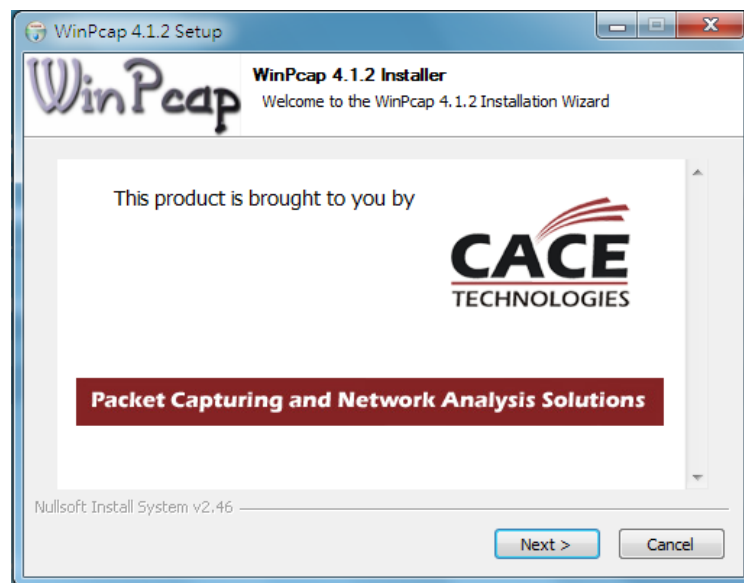


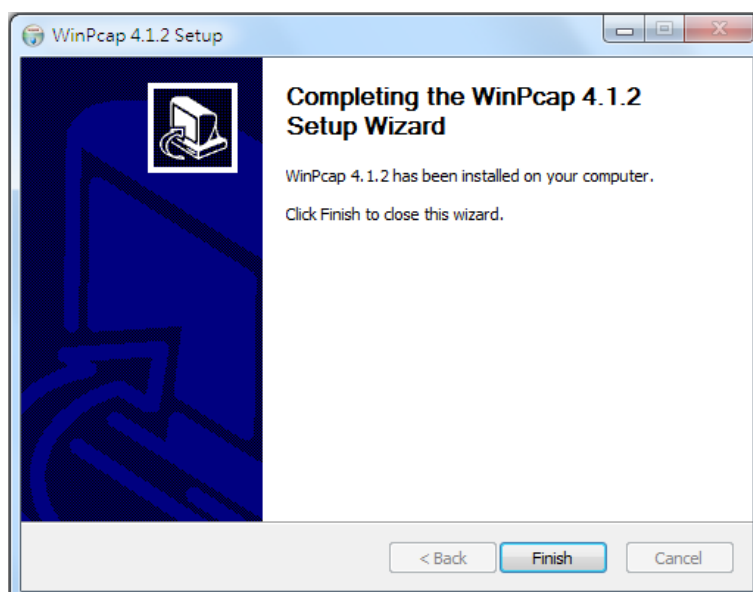
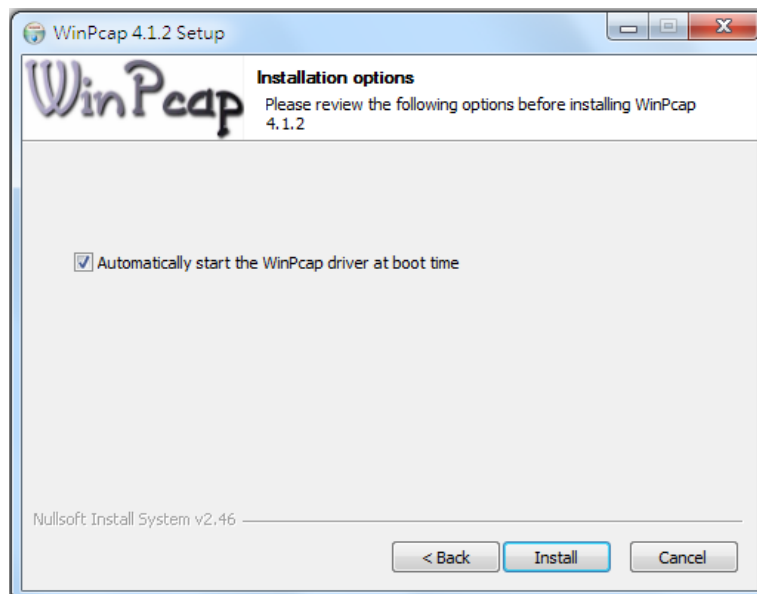
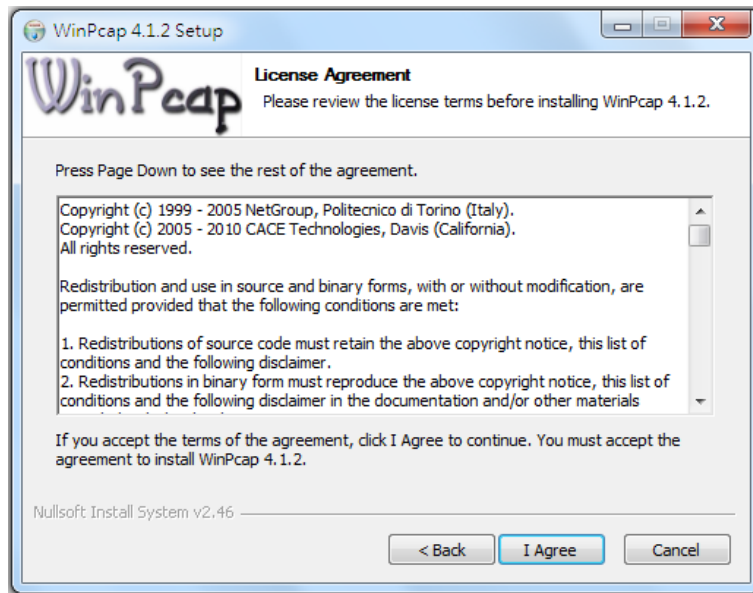
- Step 3** Then click "Setup Utility".



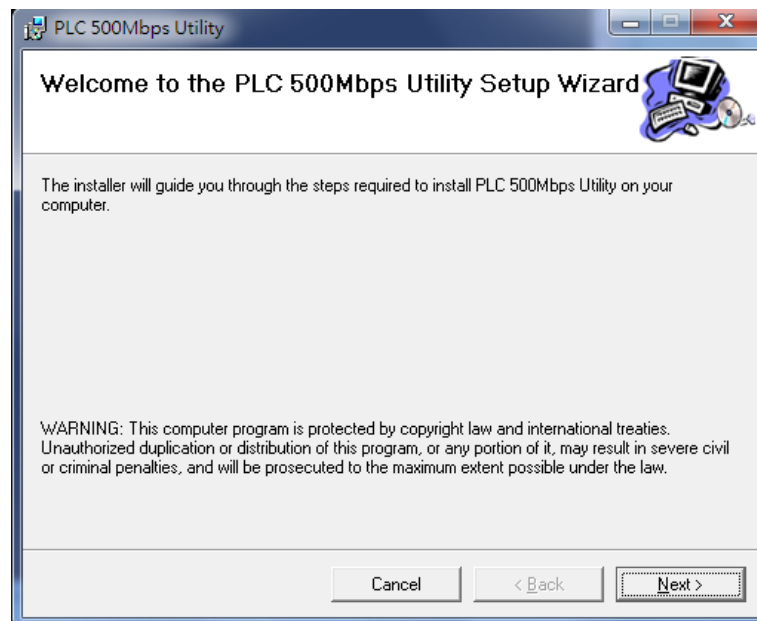


**Step 4** If you have not installed WinPcap version 4.1.2 (or higher) on your computer before. The wizard will guide you through the setup process.

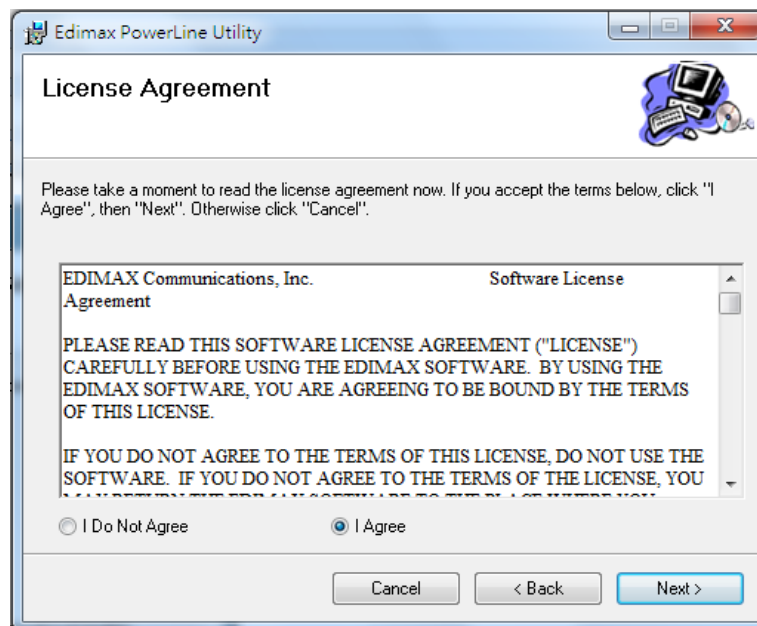




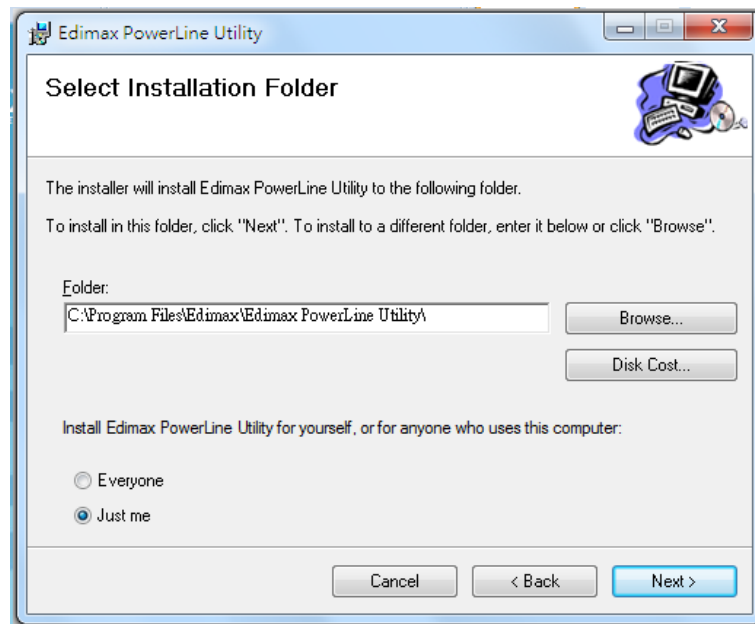
**Step 5** When the “Edimax PowerLine Utility” setup wizard appears, click “Next” to continue.



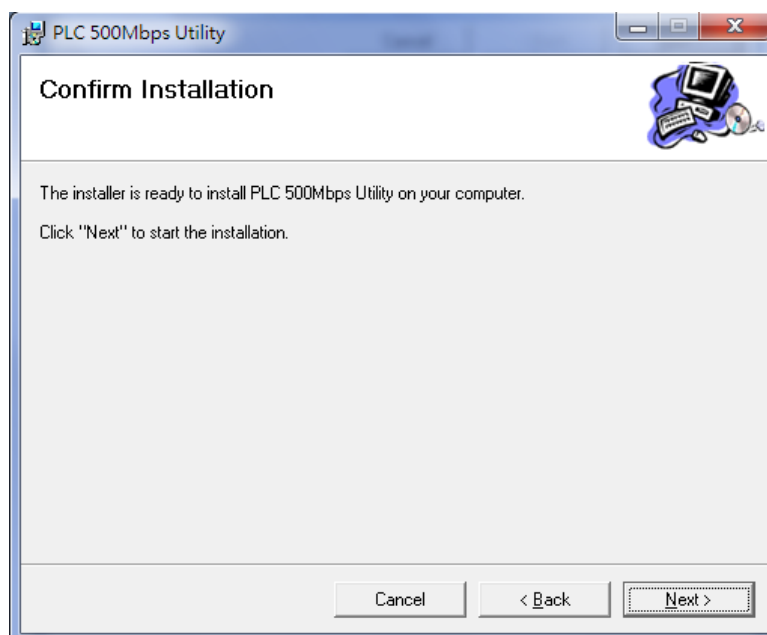
**Step 6** In the “License Agreement” screen, please select “I Agree” and then click “Next” to continue.



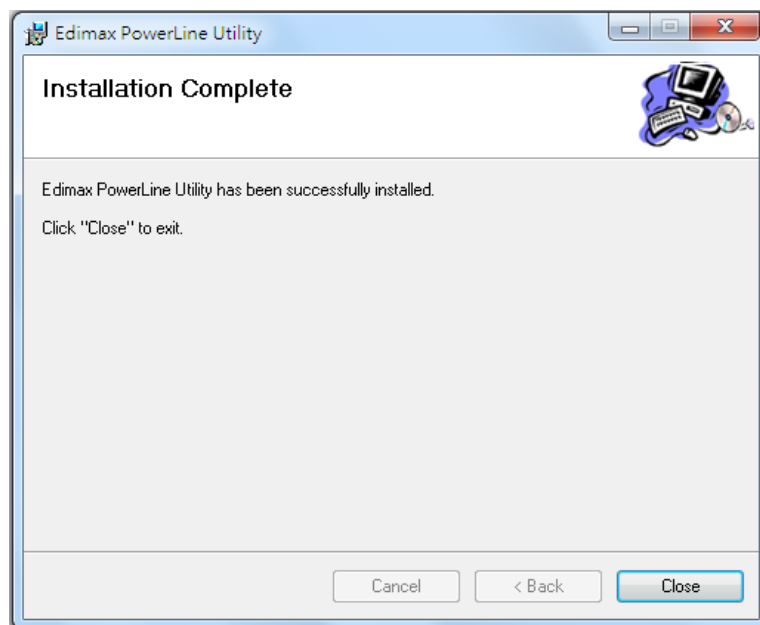
**Step 7** Select where you want to install the utility software, and then click “Next”.



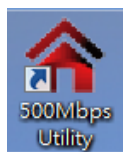
**Step 8** If you confirm to install the utility, click “Next”.



**Step 9** After the installation is complete, click “Close”.



**Step 10** An icon will appear on your desktop. Click the icon to open the utility software.

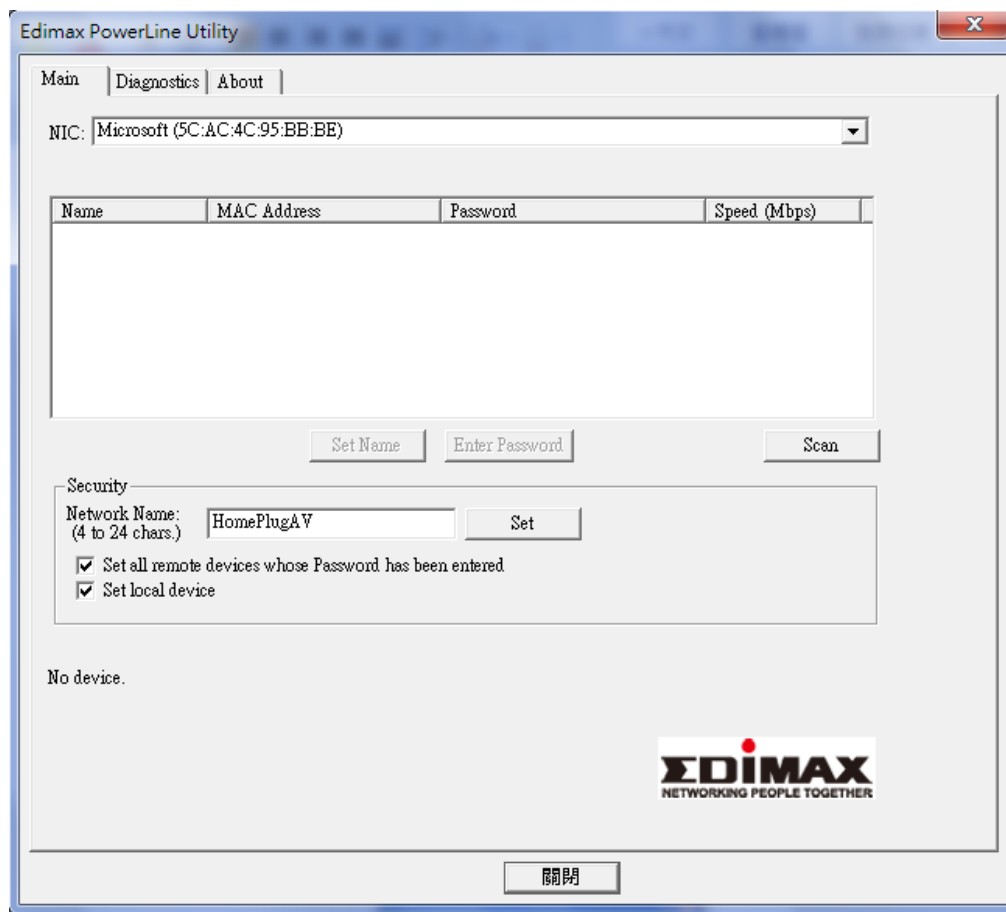


**Note:** You can manage all the connected powerline adapters with the utility software. However, installing the utility software is optional.

## Chapter 4: Using the Utility Software

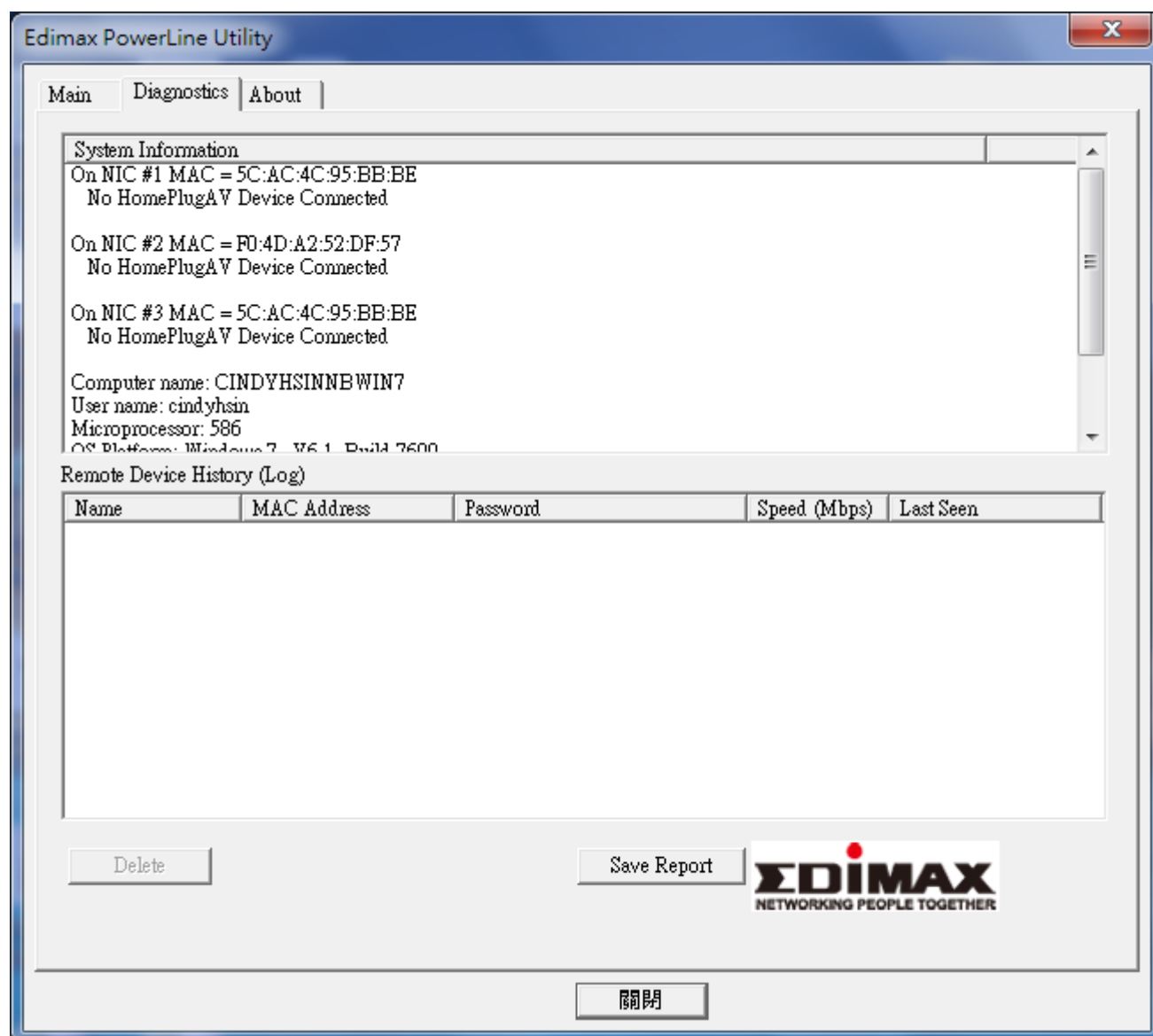
### 4.1 Main Tab

The “Main” tab provides a list of powerline adapters connected to the network. The upper panel displays local powerline adapters. The lower panel displays remote powerline adapters in the network.



Set Name	Select a device and click “Set Name” to rename the device.
Enter Password	By default, this column is blank. Select a device and click “Enter Password” to set up a password for the device.
Scan	Click “Scan” and the utility software will perform an immediate scan of other remote powerline adapters. By default, the utility automatically scans every few seconds.

## 4.2 Diagnostics Tab

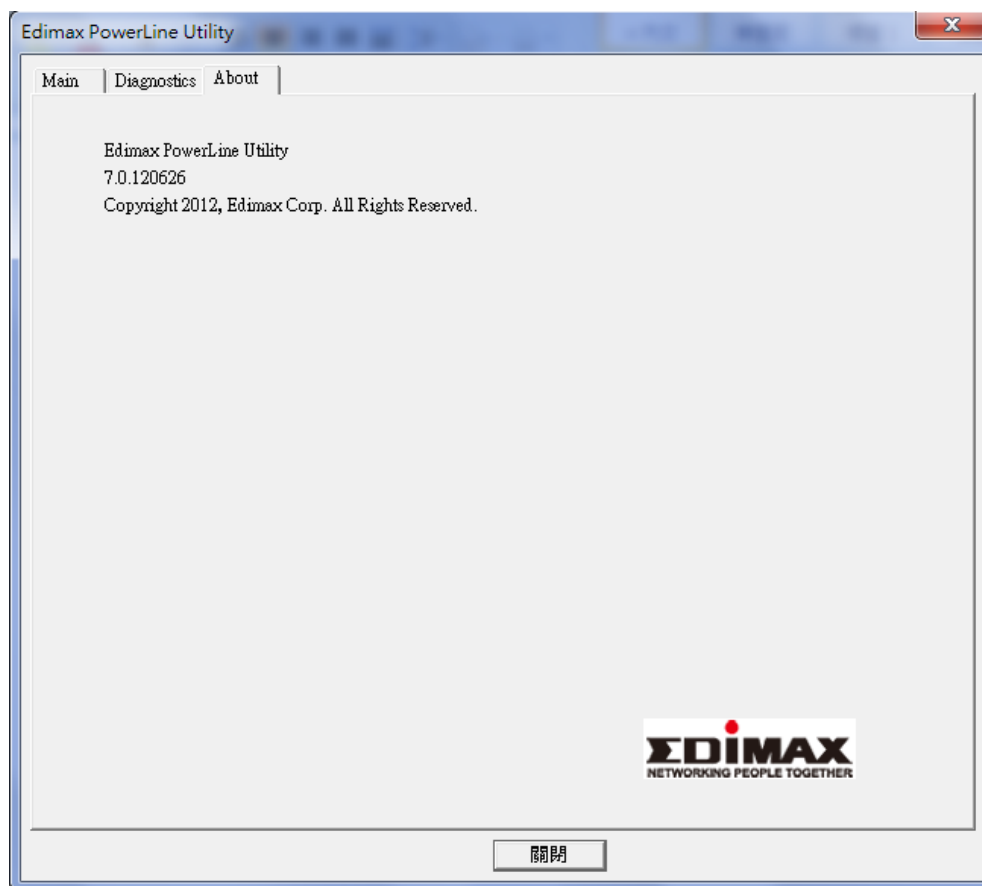


The “Diagnostics” tab displays the system information and history of all remote devices.

The upper panel displays technical data concerning the software and hardware on the host computer and the lower panel displays the history of all remote devices.

### 4.3 About Tab

The “About” tab contains some basic information about the software. You can also enable or disable the autoscan function under “Preferences”.





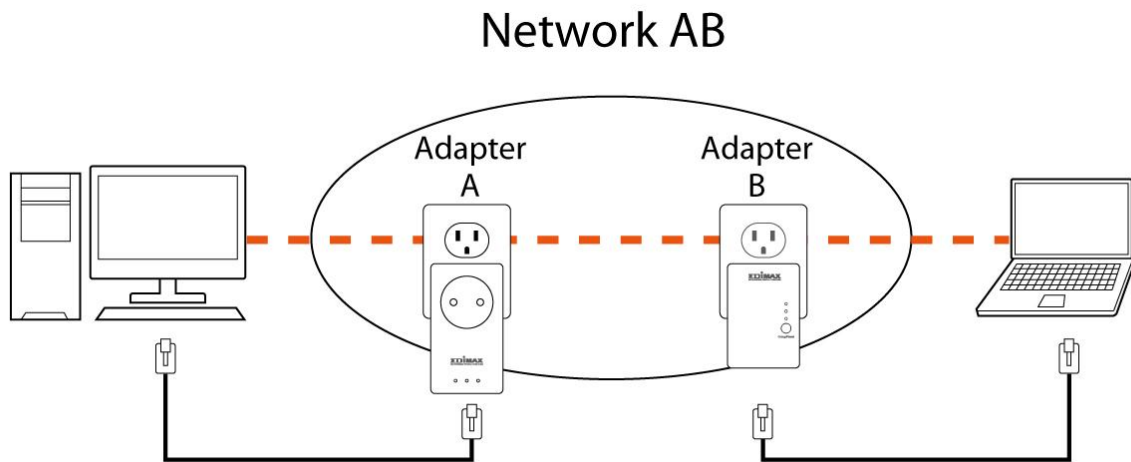
## Chapter 5: Group Button

This section demonstrates how to add or remove devices from a HomePlug AV network with the “Group” button.

### 5.1 Forming a HomePlug AV Logical Network

When two devices with different group keys are connected to the same powerline and you want them to form a logical network, follow the following procedures:

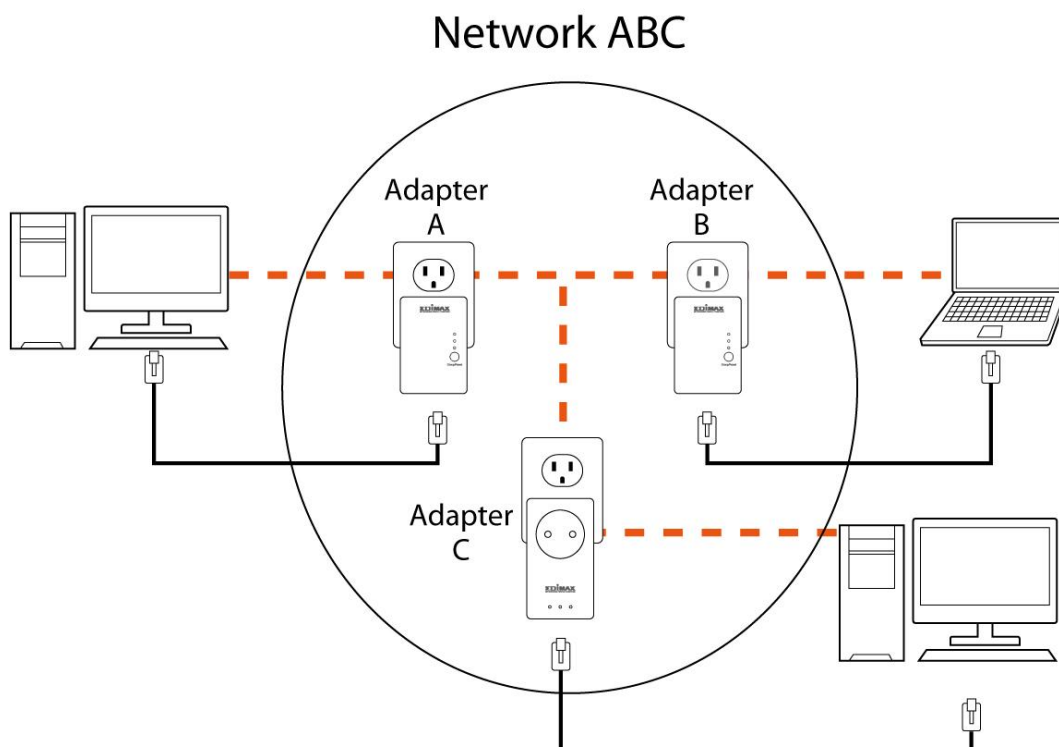
- Step 1** Press and hold the “Group” button on adapter A for less than 3 seconds. The Power LED will start to blink.
- Step 2** Within 120 seconds after the Power LED starts blinking on adapter A, press the “Group” button on adapter B for less than 3 seconds.
- Step 3** Wait for the connection to be established.



## 5.2 Joining a Network

If you want to add a new powerline device to an existing network, follow the following procedures:

- Step 1** Press the “Group” button on an adapter in the existing network (adapter A or B) for less than 3 seconds. The Power LED will start to blink.
- Step 2** Within 120 seconds after the Power LED starts blinking on adapter A or B, press the “Group” button on the new adapter (adapter C) for at least 3 seconds.
- Step 3** Wait for the connection to be established.



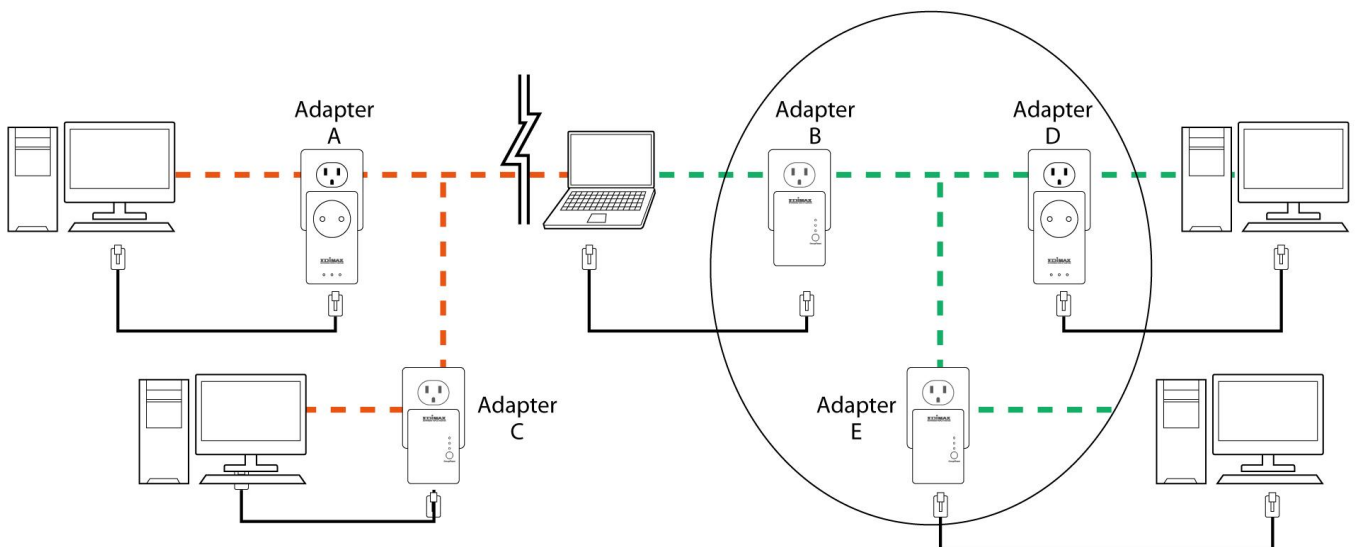
## 5.3 Leaving a Network & Joining another Network

If you want to remove a powerline device from an existing network and add it to another network, follow the following procedures:

- Step 1** Press the “Group” button on the adapter to be removed (adapter B) for at least 10 seconds.
- Step 2** Wait for adapter B to be disconnected with adapter A & C.
- Step 3** Press the “Group” button on an adapter in another network (adapter D) for less than 3 seconds. The Power LED will start to blink.
- Step 4** Within 120 seconds after the Power LED starts blinking on adapter D, press the “Group” button on adapter B for at least 3 seconds.
- Step 5** Wait for the connection to be established.

Remove Adapter B form Network ABC

Join Adapter B to Network DE



## ***Chapter 6: Troubleshooting***

If your powerline adapters have difficulty communicating with each other, try the following procedures:

- Try power cycling the unit by unplugging it from the electric outlet for 10 seconds and plugging it in again.
- Use a pin to hold the reset button down for 2 seconds on each unit you are trying to connect. The units will reset and attempt to establish a connection using factory default settings.
- Try plugging the powerline adapter into an adjacent electric outlet.
- Powerline adapters work better when plugged directly into an electric outlet. Using a power strip or surge protector may degrade network performance or completely block network signals.
- This powerline adapter should not be used on GFI protected electric outlets, as some outlets will filter out the powerline signal.
- This powerline adapter should not be used in areas with excessive heat.
- Certain florescent or incandescent lights are noise sources that can degrade performance.
- If your building has more than one circuit breaker box, your powerline adapters may not be able to establish a connection across different circuit breaker boxes. In such cases, try establishing a connection across different circuit breaker boxes by linking two powerline adapters together with an Ethernet cable.

## ***Federal Communication Commission Interference Statement***

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

1. Reorient or relocate the receiving antenna.
2. Increase the separation between the equipment and receiver.
3. Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
4. Consult the dealer or an experienced radio technician for help.

### **FCC Caution**

This device and its antenna must not be co-located or operating in conjunction with any other antenna or transmitter. This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation. Any changes or modifications not expressly approved by the party responsible for compliance could void the authority to operate equipment.

### **Federal Communications Commission (FCC) Radiation Exposure Statement**

This equipment complies with FCC radiation exposure set forth for an uncontrolled environment. In order to avoid the possibility of exceeding the FCC radio frequency exposure limits, human proximity to the antenna shall not be less than 2.5cm (1 inch) during normal operation.

### **Federal Communications Commission (FCC) RF Exposure Requirements**

SAR compliance has been established in the laptop computer(s) configurations with PCMCIA slot on the side near the center, as tested in the application for certification, and can be used in laptop computer(s) with substantially similar physical dimensions, construction, and electrical and RF characteristics. Use in other devices such as PDAs or lap pads is not authorized. This transmitter is restricted for use with the specific antenna tested in the application for certification. The antenna(s) used for this transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

### **R&TTE Compliance Statement**

This equipment complies with all the requirements of DIRECTIVE 1999/5/EC OF THE EUROPEAN PARLIAMENT AND THE COUNCIL of March 9, 1999 on radio equipment and telecommunication terminal equipment and the mutual recognition of their conformity (R&TTE). The R&TTE Directive repeals and replaces in the directive 98/13/EEC (Telecommunications Terminal Equipment and Satellite Earth Station Equipment) As of April 8, 2000.

### **Safety**

This equipment is designed with the utmost care for the safety of those who install and use it. However, special attention must be paid to the dangers of electric shock and static electricity when working with electrical equipment. All guidelines of this and of the computer manufacture must therefore be allowed at all times to ensure the safe use of the equipment.

### **EU Countries Intended for Use**

The ETSI version of this device is intended for home and office use in Austria, Belgium, Bulgaria, Cyprus, Czech, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Turkey, and United Kingdom. The ETSI version of this device is also authorized for use in EFTA member states: Iceland, Liechtenstein, Norway, and Switzerland.

### **EU Countries Not Intended for Use**

None

## EU Declaration of Conformity

- English:** This equipment is in compliance with the essential requirements and other relevant provisions of Directive 2004/108/EC, 2009/125/EC.
- Français:** Cet équipement est conforme aux exigences essentielles et autres dispositions de la directive 2004/108/EC, 2009/125/EC
- Čeština:** Toto zařízení je v souladu se základními požadavky a ostatními příslušnými ustanoveními směrnic 2004/108/EC, 2009/125/EC.
- Polski:** Urządzenie jest zgodne z ogólnymi wymaganiami oraz szczególnymi warunkami określonymi Dyrektywą UE 2004/108/EC, 2009/125/EC.
- Română:** Acest echipament este în conformitate cu cerințele esențiale și alte prevederi relevante ale Directivei 2004/108/EC, 2009/125/EC.
- Русский:** Это оборудование соответствует основным требованиям и положениям Директивы 2004/108/EC, 2009/125/EC.
- Magyar:** Ez a berendezés megfelel az alapvető követelményeknek és más vonatkozó irányelveknek (2004/108/EC, 2009/125/EC)
- Türkçe:** Bu cihaz 2004/108/EC, 2009/125/EC direktifleri zorunlu istekler ve diğer hükümlerle ile uyumludur.
- Українська:** Обладнання відповідає вимогам і умовам директиви 2004/108/EC, 2009/125/EC.
- Slovenčina:** Toto zariadenie spĺňa základné požiadavky a ďalšie príslušné ustanovenia smerníc 2004/108/EC, 2009/125/EC.
- Deutsch:** Dieses Gerät erfüllt die Voraussetzungen gemäß den Richtlinien 2004/108/EC, 2009/125/EC.
- Español:** El presente equipo cumple los requisitos esenciales de la Directiva 2004/108/EC, 2009/125/EC.
- Italiano:** Questo apparecchio è conforme ai requisiti essenziali e alle altre disposizioni applicabili della Direttiva 2004/108/EC, 2009/125/EC.
- Nederlands:** Dit apparaat voldoet aan de essentiële eisen en andere van toepassing zijnde bepalingen van richtlijn 2004/108/EC, 2009/125/EC.
- Português:** Este equipamento cumpre os requisitos essenciais da Directiva 2004/108/EC, 2009/125/EC.
- Norsk:** Dette utstyret er i samsvar med de viktigste kravene og andre relevante regler i Direktiv 2004/108/EC, 2009/125/EC.
- Svenska:** Denna utrustning är i överensstämmelse med de väsentliga kraven och övriga relevanta bestämmelser i direktiv 2004/108/EC, 2009/125/EC.
- Dansk:** Dette udstyr er i overensstemmelse med de væsentligste krav og andre relevante forordninger i direktiv 2004/108/EC, 2009/125/EC.
- Suomi:** Tämä laite täyttää direktiivien 2004/108/EC, 2009/125/EC oleelliset vaatimukset ja muut asiaankuuluvat määräykset.

FOR USE IN

AT	BE	CY	CZ	DK	EE	FI	FR	RU
DE	GR	HU	IE	IT	LV	LT	LU	MT
NL	PL	PT	UA	SK	SI	ES	SE	GB
IS	LI	NO	CH	BG	RO	TR		



### WEEE Directive & Product Disposal



At the end of its serviceable life, this product should not be treated as household or general waste. It should be handed over to the applicable collection point for the recycling of electrical and electronic equipment, or returned to the supplier for disposal.



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